

Client's ref.: 9115000094
File: 0711-8856us-final/Calvin/Steve

What is claimed is:

1 1. A method of braking control in rapid track
2 seeking for an optical drive, comprising the steps of:
3 detecting a deviation between a pickup head of the
4 optical drive and a center of an information
5 track on an optical disc in the optical drive;
6 obtaining a tracking error signal according to the
7 deviation;
8 calculating a seeking velocity according to the
9 tracking error signal;
10 determining a braking force for the pickup head
11 according to the seeking velocity; and
12 braking the pickup head with the braking force.

1 2. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 1,
3 further comprising:
4 providing a predetermined distance so that the step
5 of obtaining the tracking error signal is not
6 performed until the deviation is no greater
7 than the predetermined distance.

1 3. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 1,
3 wherein the tracking error signal is a sine wave signal.

1 4. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 1,
3 wherein the optical drive further comprises a coarse
4 actuator for providing the braking force.

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1 5. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 1,
3 wherein the optical drive further comprises an optical
4 sensor for detecting the deviation and obtaining the
5 tracking error signal.

1 6. A method of braking control in rapid track
2 seeking for an optical drive, comprising the steps of:
3 calculating a seeking velocity of a pickup head of
4 the optical drive according to a tracking error
5 signal of the pickup head; and
6 selecting a braking force from a plurality of
7 predetermined braking forces according to the
8 seeking velocity, and braking the pickup head
9 with the braking force.

1 7. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 6,
3 wherein the tracking error signal is a sine wave signal.

1 8. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 6,
3 wherein the optical drive further comprises a coarse
4 actuator for providing the braking force.

1 9. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 6,
3 wherein the optical drive further comprises an optical
4 sensor for detecting a deviation between the pickup head
5 and a center of an information track on an optical disc

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6 in the optical drive and obtaining the tracking error
7 signal.

1 10. A method of braking control in rapid track
2 seeking for an optical drive, comprising the steps of:

3 calculating a seeking velocity of a pickup head of
4 the optical drive and a related braking force
5 according to a tracking error signal of the
6 pickup head; and

7 applying the braking force according to the seeking
8 velocity to the pickup head.

1 11. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 10,
3 wherein the tracking error signal is a sine wave signal.

1 12. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 10,
3 wherein the optical drive further comprises a coarse
4 actuator for providing the braking force.

1 13. The method of braking control in rapid track
2 seeking for an optical drive as claimed in claim 10,
3 wherein the optical drive further comprises an optical
4 sensor for detecting a deviation between the pickup head
5 and a center of an information track on an optical disc
6 in the optical drive and obtaining the tracking error
7 signal.